

REMARKS

Claims 1 and 7 have been amended. The amendments "while power is being supplied to the liquid crystal display" in currently amended claims 1 and 7 are based on "The liquid crystal display device of the embodiment turns off the input signal after receiving the user request to turn off the liquid crystal display device, and do not shut down the power supply" at page 14, line 23, to page 15, line 3, in the specification of the present application and "the system turns off only the input signal at the time of stopping using the liquid crystal display device while maintaining the power supply" at page 6, lines 1-3, in the specification of the present application.

The amendments "after discharging of the liquid crystal display, the controller outputs signals to the gate line driver and the data line driver for making the gate line driver and the data line driver return to a state before the discharging was performed" in currently amended claim 1 and the amendments "after discharging of the liquid crystal display, outputting signals to the gate line driver and the data line driver for making the gate line driver and the data line driver return to a state before the discharging is performed" in currently amended claim 7 are based on "At the time t2, when the pulse signal MG becomes the L level, the shift register 12 turns off all the active gate lines G1 to Gn. -- Thus, the thin-film transistor 72 of the unit pixel is turned off. The output switching circuit 100 switches the path

for supplying the input signals to the data lines S1 to Sm, from the common electric potential Vcom to the horizontal signal processor 16. At this time, because the signals such as the synchronizing signal is not input, the data lines are not driven even when the path is switched to the horizontal signal processor 16, and is connected to the ground" at page 16, lines 10-15, in the specification of the present application, and Figs. 1 and 3 of the present application.

Accordingly, no new matter is contained in currently amended claims 1 and 7.

Claims 1-2 and 4-13 were rejected as unpatentable over YASUI et al. 5,248,963 in view of KANEDA JP 11-271715. Reconsideration and withdrawal of the rejection are respectfully requested in view of the present amendment.

As stated in currently amended claims 1 and 7, the liquid crystal display device of the present invention discharges itself in response to detection that one of signals is no longer being input to the liquid crystal display device while power supply to the liquid crystal display is maintained. In addition, after discharging of the liquid crystal display, the controller outputs signals to the gate line driver and the data line driver for making the gate line driver and the data line driver return to a state before the discharging was performed. Therefore, the liquid crystal display device of the present invention can discharge without shutting down and is suitable for use in

systems such as FA (Factory Automation) which cannot turn OFF the liquid crystal display device.

YASUI et al. disclose a liquid crystal display erasing circuit for detecting the turning OFF of a power supply to a liquid crystal display device and erasing the liquid crystal display device, "thereby erasing the display in a short time after turning OFF of the power supply". (Abstract of YASUI et al.) Therefore, the liquid crystal display erasing circuit disclosed in YASUI et al. cannot erase the liquid crystal display in a case in which the liquid crystal display is used in systems such as FA since the liquid crystal display is not turned OFF. "Further, FA (Factory Automation), and monitors, which have been developed in recent years, include a plurality of devices some of which have the liquid crystal display devices. The power to all the devices may be supplied from the same power source. In this case, only the liquid crystal display device cannot be turned off. Therefore, when finishing using the liquid crystal display device, only the input signals are stopped, and the power supply to the liquid crystal display device is not turned off" (page 3, line 22, to page 4, line 5, in the specification of the present application). Accordingly, the liquid crystal display device disclosed in YASUI et al. is not suitable for use in systems such as FA since it cannot discharge without shutting down.

The Official Action states that KANEDA discloses detecting absence of input signals such as a reference clock

signal CK, a level start signal STH, a perpendicular clock signal CPV, and a perpendicular start signal STV, and then outputting a potential voltage to a common electrode and data lines. However, KANEDA does not disclose or suggest a liquid crystal display device which can discharge without shutting down.

As explained above, YASUI et al. and KANEDA cannot obtain benefits of the present invention (i.e., dischargeable without turning OFF the power supply) because the abovementioned features are NOT disclosed or suggested therein. Therefore, currently amended claims 1 and 7 of the present invention are novel and non-obvious in view of YASUI et al. and KANEDA.

Claims 2, 4, 5, and 8-10 are dependent on currently amended claim 1; therefore, these claims should also be novel and non-obvious in view of YASUI et al. and KANEDA.

Claims 11-13 are dependent on currently amended claim 7; therefore, these claims should also be novel and non-obvious in view of YASUI et al. and KANEDA.

Claims 1-2 and 4-13 were rejected as unpatentable over YASUI et al. in view of TAKASE et al. 6,504,534. Reconsideration and withdrawal of the rejection are respectfully requested in view of the present amendment.

The Official Action states that TAKASE et al. disclose a detection means for detecting the absence of a video signal or a sync signal and outputting a control signal to turn OFF a power supply of a display device automatically based on the detected

absence. However, since the display device (CRT) disclosed in TAKASE et al. is automatically turned OFF, it is not suitable for use in systems such as FA, in which the display device cannot be turned OFF.

As explained above, YASUI et al. and TAKASE et al. cannot obtain the benefits of the present invention (i.e., dischargeable without turning OFF the power supply) because the abovementioned features are not disclosed or suggested therein. Therefore, currently amended claims 1 and 7 of the present invention are novel and non-obvious in view of YASUI et al. and TAKASE et al.

Claims 2, 4, 5 and 8-10 are dependent on currently amended claim 1; therefore, these claims should also be novel and non-obvious in view of YASUI et al. and TAKASE et al.

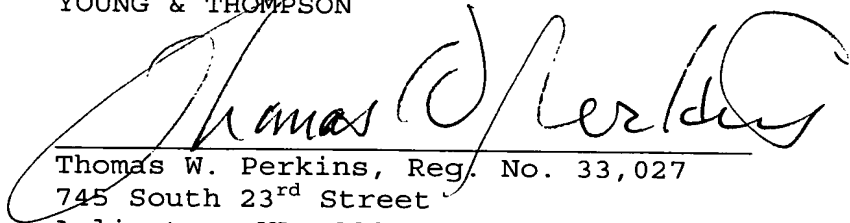
Claims 11-13 are dependent on currently amended claim 7; therefore, these claims should also be novel and non-obvious in view of YASUI et al. and TAKASE et al.

In view of the present amendment and the foregoing remarks, it is believed that the present application has been placed in condition for allowance, which is respectfully requested.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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A large, stylized handwritten signature in dark ink, appearing to read "Thomas W. Perkins". The signature is written over a horizontal line that separates it from the printed contact information below.

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